REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1-2, 4, 6, 9, 12, 15, 16, 19, 20, 23-26, 31-32, 35, 37 and 42-54 have been canceled without prejudice. New claims 57-88 are added that include new independent claims 57, 64, 71, 76 and 82. The Applicants submit that no new matter has been introduced into the application by these amendments.

Claim Rejections - 35 USC §103

Claims 1, 4, 6, 9, 12, 16, 20, 23, 26, 31, 35, 43, 45, 48-49 and 51 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Watanabe et al. (US Patent No. 6834192) in view of Jollota et al. (US 2004/0142691) further in view of Forssen (US Patent No. 5615409). Claims 2, 24-25, and 37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Watanabe et al., Jollota et al. and Velazquez et al. in view of Bark et al. (US Patent No. 6445917). Claims 15, 19, 32, 42, 46-47, 50 and 52-54 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Watanabe, Jollota, Forssen in view of Anderson et al. (US Patent No. 5396541).

Claims 1-56 have been canceled without prejudice. However, the Applicants believe the present claims are patentable over the cited references which are directed to a novel and unobvious combination of using an omnidirectional sounding pulse in combination with wireless communication beamforming.

Watanabe fails to teach or suggest "using selectively operable beamforming antenna to direct a common channel toward a relative location of the WTRU" as

defined by new independent claims 57, 64, 71, 76 and 82. Watanabe recites that "the mobile Bluetooth device searches for other possibilities including a new AP" (column 6, lines 41-43). The means by which this search is performed is not disclosed. Watanabe then explains that once a new AP is found and selected "Establishment of a new connection with the access point 22-2 is attempted by the mobile Bluetooth device pursuant to an INQUIRY process (column 6, lines 43-45). "An INQUIRY message is sent by the mobile Bluetooth device to the access point 22-2 to inquire of a device address identifying the access point." Thus it is clear that the INQUIRY message is directed to the access point. Nothing in Watanabe teaches or suggests that the INQUIRY message is equivalent to the omnidirectional sounding pulse recited by independent claims.

The Examiner argues that it is known in the art of Bluetooth that a mobile device often sends out an inquiry signal and receives responses back from multiple access points and one of the access points is selected for communication. However, one skilled in the art would recognize that a Bluetooth an INQUIRY signal is inapplicable for use with a WTRU and is not the equivalent of an omnidirectional sounding pulse as recited by the new independent claims. For example, the INQUIRY process is a relatively slow, taking on the order of several seconds to complete; the effective signal range is only 10 meters; an INQUIRY signal is sent on a train of 32 hop frequencies. Furthermore, an INQUIRY signal results in the communication of a target Bluetooth access point's MAC address and clock information, and does not provide any indication

of the relative location. Therefore an inquiry signal is not equivalent to the omnidirectional sounding pulse recited by the new independent claims.

Jollota et al. teaches a technique for connection initiation in Bluetooth networks where a mobile unit sends an Inquiry packet, such that nearby base stations that are in an inquiry scan state receive the Inquiry packet from the mobile unit. As explained above, the Bluetooth INQUIRY process is not equivalent to an omnidirectional sounding pulse.

Furthermore, Watanabe and Jollota do not consider directing a common channel toward the relative location of the WTRU. The concept of directionality is antithetical to the Bluetooth technology and nothing Watanabe or Jollota suggests the use of location information.

The Examiner asserts that Forssen teaches a method of establishing a wireless communication using smart antenna arrays. The Applicants respectfully disagree. Forssen discloses establishing a connection, and then using beamforming to reduce interference and increase system capacity (column 2, lines 21-30). Forssen explicitly states that class one channels, which are omnidirectional (Figure 2A), are used for setting up a new call (column 4, lines 15-16). Then, after the call has begun, positional information is determined (column 4, lines 15-35). Only then is a directional, narrow lobe, beam used. Therefore Forssen fails to remedy the deficiencies of Watanabe and Jollota. Bark, Anderson, and Willingham similarly fail to remedy the deficiencies of Watanabe, Jollota, and Forssen.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 57-88, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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